SBX7-7 Urban Stakeholder Committee

U4 Technical Subcommittee

Method 4 Proposal

Association of California Water Agencies

General Overview of Proposed Method

Conceptual Description

- A procedure through which a water supplier can establish a water conservation target that will contribute that agency's fair share of 20% statewide reduction
- Foundation – Any two water systems can be compared on a water use efficiency basis
  - DWR establish landscape water use in agencies that may use Option 3 as a reference standard
  - Other agencies can set target by comparing conditions including:
    - Plant water needs
    - Climate
    - Population density

Basic Procedures to Calculate Target

1. Determine agencies gross water use per WC 10608.12(g)
2. Determine CII annual water use and subtract from gross. Convert to gpcd.
3. Determine existing indoor residential use (assume 70gpcd; Jan-Feb use; meters)
4. Subtract CII and IR to get aggregate outdoor use in gpcd
5. DWR to calculate population-weighted ET for Option 3 “Reference Area (RA)”
6. DWR to calculated population-weighted landscape area for RA (in sf per capita)

Basic Procedures to Calculate Target - continued

7. WAs to calculate their landscape climate/plant needs using ratio of their ET to RA ET
8. WAs to calculate their landscape area using ratio of their sf per capita to RA sf pc
9. Multiply the result of 7 and 8 by 0.95 to reflect 5% reduction required of Option 3 WAs
10. Calculate IR use by multiplying IR RA by 0.95
11. Multiply CII (2) by 0.90 (after 2012 use result of CII TF)
12. The sum of landscape water use target (9) IR use target (10) and CII target (11) is the WA target in gpcd

Consideration of Climatic Differences in the State

- Foundation – Climate and plant needs can be generalized for RA and compared to any other parts of the state
- Uses existing DWR regional ETo map to reflect generalized climatic differences across the state (per 20X2020)
- Allows for more specific landscape water use information for climate of WA if available

Consideration of Population Density Differences Within the State

Foundation - Landscape area can be assumed to be inversely related to population density anywhere in the state

- Example – WA service areas reflect historic and contemporary development patterns that can be identified using mapping and planning tools
- Such patterns can be compared on a water use efficiency basis regionally

Methods to Provide Flexibility to Communities and Regions

- Encourages each urban retail water supplier to focus on optimizing aggregate water use efficiency, considering local climate and development patters
- WAs consider the unique local role that code enforcement/rates, water recycling, plus locally cost effective and grant funded active conservation will play in meeting their target
- Water agencies allowed and encouraged to collaborate regionally

Consideration of Different Levels of Per Capita Water Use - Regional Plant Water Needs

- Each WA develops its target based on its unique pattern of irrigated landscape and climate – adjusted by population density to reflect per capita water use

Consideration of Different Levels of CII Water Use in Different Regions of the State

- All WAs accept 10% CII sector reduction, but can adjust this component if justified by substantial local process water demands as specified in the statue

Consideration of Undue Hardship on Communities

- WAs are provided flexibility to use available water use information, land use mapping or other planning tools to make required calculations to set target (addressing potential financial hardship)
- WAs are allowed to collaborate regionally to leverage resources to accommodate local deficiencies in capacity (addressing potential financial hardship)
- WAs are allowed to focus implementation on measures and practices that are locally most effective (financially and politically)

Difference from Legislatively Defined Methods

Provides a “custom” target-setting approach versus:

- inflexible “across the board” reduction approach of Method 1
- the prescriptive and data-intensive approach of Method 2
- the development pattern and climate-dominated approach of Method 3

Cost and Expense to Collect Data Required to Implement the Method

- Varies by WA depending on how they choose to implement the method
- Most data needs are already met by available planning information from the UWMPs or local land use agencies
- Shifts some costs for the RA calculations to DWR to ensure appropriate statewide standardization and consistency
- Leaves these cost decisions with the WAs rather than imposing inflexible state-mandated costs

Ease of Implementation by the Water Supplier

- Uses CUWCC BMPs as valuable implementation tools but defers to local determination of the relative weight to be given to each
- Comparable with Method 3; likely less difficult than Method 2 and more difficult then Method 1
- Requires a level of capacity in keeping with UWMP requirements
- Preserves local WA implementation flexibility over other Methods – “PRICELESS”

Statewide 20% Savings

- 2009 State Water Plan identifies four strategies that will influence gpcd:
  - Code enforcement/water metering
  - Urban water recycling
  - Locally cost effective active conservation
  - Grant funded active conservation
- State estimates that by 2030 total state-wide savings will be 2.4 million AF:
  - ✓ Code enforcement/rates 40%
  - ✓ Water recycling 13%
  - ✓ Locally cost effective 37%
  - ✓ Grant funded 10%